

## Quantitative Data:

- Measured data, with units
- Useful to graph
- Histograms:
  - Groups quantitative data together in a distribution.
  - Width of each bar is called the bin width. Bin widths must be the same for the histogram.
  - Any bin with no data will be a gap in the data.
  - We can make either frequency or relative frequency histograms.
    - (counts)
    - (percentages)
  - Example on notes:
 

y-axis is frequency  $\rightarrow$  number of counts

70-74 feet  $\rightarrow$  8 trees

- to find total number of counts in the study, add the counts of all the bins

60-64 feet  $\rightarrow$  3 trees

65-69 feet  $\rightarrow$  3 trees

70-74 feet  $\rightarrow$  8 trees

75-79 feet  $\rightarrow$  10 trees

80-84 feet  $\rightarrow$  5 trees

85-89 feet  $\rightarrow$  2 trees

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31 trees

## Stem and Leaf Display

- Like a histogram, but shows individual values.
- On example, stem is tens place and leaves are ones place
- Stems can be either in ascending or descending order

stem (tens place)	9		0	4	leaf (ones place)		
	8		3	4	5	7	9
	7		0	2	2	9	
	6		5	8	9		
	5		3				

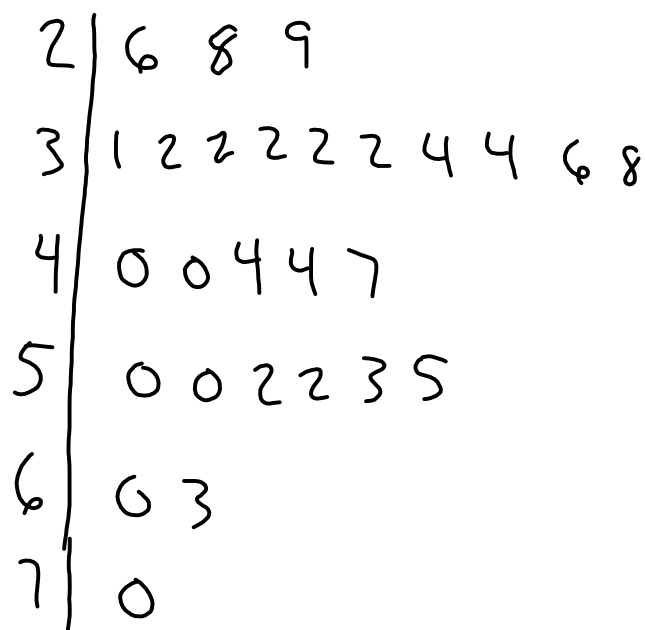
Test Grade (points)  
Variable (unit)

- Most basic way to show data

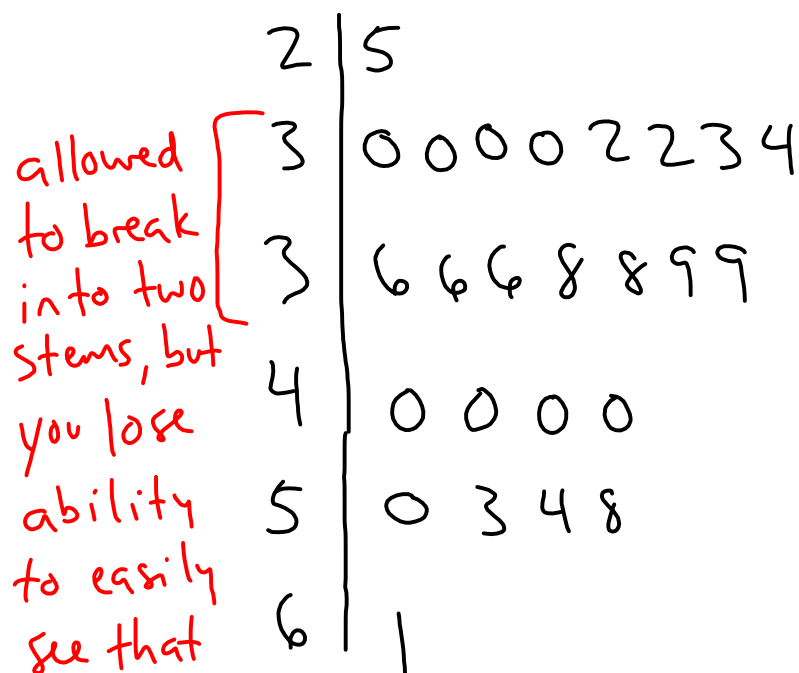
## Dot Plot:

- Simply puts a dot next to an axis for each case
- The dots are counts of number of times some thing happens
- On example, dots represent number of times random number occurs

Atlanta



Philadelphia



the 30's have the most buildings

## Paper Airplanes:

1. Each person makes an airplane.
2. Each person throws airplane 5 times.
3. Record distance of plane (1 block = 1 foot).
4. Make histogram.

TURN IN TOMORROW!